

Appl. No. 10/523,170
Reply to Office Action of July 11, 2006

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Amendments to the Specification:

IN THE ABSTRACT:

Please replace the Abstract with the following Abstract
based on claim 1:

ABSTRACT

A wavelength converter that is used in an optical communication system utilizing wavelength multiplexing. The wavelength converter has a quasi-phase matched quartz crystal that has a second-order nonlinear effect, and a light coupling device that mixes the signal light and control light and inputs this mixed light into the quasi-phase matched quartz crystal. The wavelength converter also has quartz type optical fibers between the light coupling device and the quasi-phase matched quartz crystal. The mode diameter of the quartz type optical fibers is substantially the same as the mode diameter of the optical waveguide.